

# How Can I help My Child Succeed in and Enjoy Math?

## 1. Be Positive!

Help your children develop a positive attitude toward Mathematics. Some parents readily agree with their children when they say that they find Mathematics hard to understand. **Instead of agreeing with them, help them realize that any subject could be difficult if you do not try your best to learn it.** If you have a negative attitude about mathematics, chances are your child will, too. Help your child have a "can do" attitude by praising your child's efforts as well as her accomplishments. The decision to try, to persist, to work in Math can be all about mind-set. Henry Ford is reputed to have said, "Whether you believe you can or whether you believe you can't – you're right," and there is much truth in that quote. Acknowledge the facts that mathematics can be challenging at times and that persistence and hard work are the keys to success. Relate mathematics learning to other endeavors that require hard work and persistence, such as playing a sport or an instrument. Explain to your children that many things in life are not easy. Everyone has to face challenges in life and school work, especially Mathematics, which is one of them. This is the time to teach your child patience and perseverance. Show your child how other people have struggled for what they have today and what they enjoy. In this world, nothing will be served to you in a silver platter. You have to work hard for whatever you want to get. Struggling at times in mathematics is normal and is actually necessary to, and valuable in, understanding mathematics.

## 2. Help your Child develop Math confidence

Students' beliefs in their own ability are of particular importance to their math performance. Praise your children for doing as well as they can in scores. It will make them feel happy to know that you have noticed how hard they have tried. Always give constructive criticism. This will boost their confidence and morale. Confidence springs from practicing, persisting, and seeing positive results. Students who follow the suggestions below regularly do report that it "works". Some succeed where they never have before. Success breeds confidence. You really "can" if you persist. Some have to work harder than others and must ask a lot of questions, but all can succeed if they are on top of the work all of the time.

1. **Do math every day** Just like with a foreign language, if you don't use math frequently, you'll have a harder time becoming fluent. Do some math every day possible (Yes, including weekends), even if it's only 15-30 minutes. Try to avoid stacking all of your math activities on one or two days. If you have a lot of homework, try doing it in chunks so that it is not so overwhelming.
2. **Scheduling** Build positive time management skills by making and sticking to a reasonable schedule. Your schedule should include time for studying, as well as social, personal and extra-curricular activities. There are many ways to make a schedule; find what works best for you.
3. **Prepare adequately** Often, children develop math anxiety when they don't master early math skills, and then are continually expected to learn additional math when they haven't yet gained the fundamental knowledge. Math skills build on each other. It is very important to keep up and to seek help immediately as needed. Make sure you're going to every class, taking careful neat notes, asking for clarification during teacher explanation. Immediately try the practice questions to make sure you can do that type of question. Always complete the Math homework assigned, make sure your answers are correct, and figure out how to do the problems with incorrect answers. Use the help resources available to you at Kelvin every time they are needed.. don't wait until the day before the test. For larger projects, start early rather than waiting until the last minute.
4. **Seek help** Work with friends on math homework. (Not copying answers, but working together to figure out the answers). Ask for help during class. Go to Math help at lunch. If you feel you need additional assistance, seek out a peer tutor.

**3. Help your child shake off mistakes.** One of the best things you can do as you help your child develop math skills and learn other academic and life lessons is to assure him that mistakes are something that will happen and that they are learning opportunities. If you can help your child put math mistakes into perspective and remind him that they are what will ultimately help him learn, your child will be less likely to develop anxiety about math.

#### **4. Link Mathematics with Daily Life**

Every day, people face situations that involve mathematics, such as deciding whether one has enough money to purchase a list of items at the store, reading a map to find out where one is, building a budget, deciding on the shortest route to a destination, developing a schedule, or determining the price of an item on sale. Help your child realize that mathematics is a significant part of everyday life. Suggestions for discussing mathematics with your elementary, middle, or high school child during everyday activities are listed at the end of this section.

#### **5. Make Mathematics Fun**

Play board games, solve puzzles, and ponder brain teasers with your child. Your child enjoys these kinds of activities while enhancing his mathematical thinking. Point out the mathematics involved, and have your child discuss the strategies he used.

#### **6. Learn About Mathematics-Related Careers**

Mathematics is foundational to a wide variety of interesting careers. Research different careers with your child, and find out what she should be doing now to prepare for these options. Help your child understand that the school courses she takes now and the grades she earns will affect her future.

#### **7. Have High Expectations**

Traditionally, in North America the belief that only some students are capable of learning mathematics has prevailed. Today we are guided by a vision of mathematics for all. You would not expect your child not to read; similarly, you should not expect your child not to do mathematics. Your attitude and expectations are crucial to influencing the future opportunities for your child

#### **7. Support Homework, Don't Do It!**

Homework is an area that can cause trouble in most households. Relax, and remember whose homework it is. If you take over doing homework for your child, you encourage him to easily give up or seek help when working on a challenging problem. If you start to panic when you do not know how to do the mathematics, you may signal negative thoughts about mathematics to your child. Your child is not likely to be resourceful, persistent, or confident if you react in either of these ways.

Think of yourself as more of a guide rather than your child's teacher. Your role is not only to support her but also to help her take responsibility for herself. You can facilitate your child's homework by asking questions and listening to your child. The simple act of having your child explain something out loud can often help her figure out the problem. Encourage your child to also show all her calculations or a description of her thinking process on paper to support the solution to a problem. This recording gives the student something to look back on, either for review or to spot and fix a mistake. It can also furnish the teacher with useful information related to the student's reasoning and understanding.

#### Sources:

-[\*A Family's Guide: Fostering Your Child's Success in School Mathematics\*](#). Copyright © 2004 The National Council of Teachers of Mathematics, Inc. [www.nctm.org](http://www.nctm.org).

-<http://www.mheducation.ca/school/learningcentres/mod/resource/view.php?id=25888>

-<http://support.acadsoc.com/helping-your-children-succeed-in-high-school-math-6-179-484.html>

-<http://singteach.nie.edu.sg/issue29-mathed/>

## **Why Studying Math is Different**

- Reading a math resource is not like reading a novel. You may have to stop and think about some ideas before proceeding.
- Math is a cumulative subject. If you miss a concept one day, it may come back to haunt you and could even prevent you from understanding concepts you study later. Always get help as soon as you recognize that you have a problem.
- Build up a network of math partners you can consult if you run into a roadblock. These are the days of easy communication. Telephone, email, and instant messaging are all available. Use them.

## **Take Charge and Take Action**

- Take responsibility for your own success. If you find that you don't know or understand something, take whatever steps are necessary to fix the problem. Do not let others distract you from your purpose.
- Be an active participant in the classroom. Volunteer answers to questions and offer to place solutions on the blackboard. Ask questions immediately when you think you have lost the thread of the lesson.
- Math is learned by doing problems. Although you need to know some facts and procedures, you get really good at math by working through problems. It's wise to work on a problem yourself as much as possible. You may need to ask for help at some point, but do not give up too easily. The more you can do on your own, the more your brain will develop and the easier future problems will seem.
- Problem solving is one of the key skills in the study of math. There are tips for problem solving starting on page xv in the front of *Liens Mathématiques 9*. Your teacher will show you additional strategies that you can use. In short, the steps are:
  - Understand the problem.
  - Plan how to solve it.
  - Do It! Carry out your plan.
  - Look Back. Review how you solved the problem and the answer you received. Does it make sense? If the answer seems unreasonable, it may be necessary to look for errors or select another strategy.
- Before beginning an assignment, review your class notes. Ensure that you understand the worked examples and the meaning of any new terms. Consider highlighting important concepts, equations, or definitions.
- If you have completed the assigned problems, but still don't feel comfortable with the concepts, do a few more. Most teachers will assign about half of the problems in a given exercise. If you run out of Practise questions before you feel comfortable with the concepts, ask the teacher for more.
- If you find that you need some help or a hint to proceed with the solution to a problem, be careful not to get too much help. You want a coach, not a handout. Once you see where to go, thank your coach. Do not ask for the entire solution. That robs you of an important learning opportunity.

- Remember that you have not failed at solving a question until you quit. Do not get bogged down on a question. Sometimes it is useful to skip a tricky question after thinking about it for a few minutes and then come back to it later. Continue working on the other questions.
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- Try every question and go as far as you can with each even if you can't get to the final answer. Ask about these incomplete questions in class the next day.
- If there is any reason why you cannot finish your entire math assignment, it is better to do a few problems from each part than to do just the first problems in the assignment.
- If the homework load is light on a given day, use the extra time to review and practise concepts covered earlier in the course.
- Allow a few minutes at the end of your math work session to have a look at the next lesson so that you know what is coming up. It is not necessary to work through the lesson, just to get a feeling for what is going to happen in the next math class.

### Preparing for Tests

- If you do your homework conscientiously and work at fixing problems as they occur, then preparing for tests becomes much easier. All you need to do is remind yourself of the concepts that you are going to be tested on and do some sample problems to sharpen your skills.
- When you get your test, take a minute or two to look it over. You do not have to do #1 first. If you know how to attack #3, then do that one first.
- Do not get bogged down on a question. If your strategy does not seem to be working and you are stuck for an alternative, go on to another question.
- Sometimes you will not finish a test in the time allotted. If this seems to be happening, do not panic. Accept that you are not going to finish. Make it your goal to do as many questions as you can before the time runs out.
- Read each question carefully. Be sure that you answer what is being asked.
- Show all of your work. If you make an error and arrive at the wrong answer, you will at least get partial marks.
- If you have time left, use it to verify your answers. You can sometimes work backwards to do this. Alternatively, you can solve the same question a different way. Be sure to check calculations. A slip of the finger on a calculator can easily lead to a wrong answer.
- Watch out for panic attacks or "freezeups". This occasionally happens to many students on a test. Time may be short, solutions are not going well, and you have an overwhelming sense of panic. The best thing to do is STOP. Turn the test over on your desk. Take several deep breaths, exhaling slowly. Remind yourself that you prepared for this test and that you can do most, probably all, of the questions on it. Then, return to the test, select a question that you can do, and work through it.
- If panic becomes a serious problem, consider learning one or more relaxation techniques or consulting a counselor for other strategies. Keep in mind that these will not help if the real source of the panic is inadequate preparation for the test.